

WRITTEN STATEMENT

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"Women and Technology: Increasing Opportunity and Driving International Development"

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Chairman Royce, Ranking Member Engel, distinguished members of the Committee. Thank you for the opportunity to submit a statement to the Committee on opportunities for driving international development through increasing women's access to technology. This issue is critical if we are to achieve the United Nations Sustainable Development Goals, agreed in September of this year. The United States can, and should, play a leading role in driving this agenda forward. To understand the factors at play, this statement begins with an examination of the state of connectivity globally, before looking more specifically at how women access and use the Internet. It concludes with a summary of possible policy recommendations and concrete steps that could be considered.

ORGANIZATIONAL BACKGROUND

Established in 2013, the Alliance for Affordable Internet (A4AI) is the world's broadest technology sector alliance, working to reduce the cost of broadband in developing countries. Through high-level advocacy and direct in-country engagement, the over 80 member organizations of the Alliance — including USAID, the UK Department for International Development, the Swedish Government, UN Women, Google, GSMA (the global organization representing mobile operators) and the Internet Society — identify, research, and advocate for the policy and regulatory reforms needed to bring prices down and increase access to the Internet. The Alliance is coordinated by the World Wide Web Foundation, a global civil society organization established by the inventor of the World Wide Web, Sir Tim Berners-Lee. A4AI's model is based on developing unique solutions for each country of engagement, and local coalitions are currently active in the Dominican Republic, Ghana, Liberia, Mozambique, Myanmar and Nigeria, affecting more than 300 million citizens across these countries.



THE BENEFITS OF INTERNET ACCESS

The incredible growth of Information and Communications Technology (ICT) over the past decade has transformed Internet access into a force that is critical for sustainable global development. Indeed, President Obama declared earlier this year, "The Internet is not a luxury, it is a necessity."

Research has shown that a 10% increase in broadband penetration can accelerate economic growth in low- and middle-income countries by up to 1.38 percentage points.² In a region like sub-Saharan Africa, where GDP is an estimated US\$1.712 trillion, even a modest increase in online penetration has the potential to yield billions in economic benefits.³ Meanwhile, a 2014 paper from the Copenhagen Consensus Centre suggested that investing in increasing broadband penetration in developing countries could lead to a return on investment of up to \$21 for each dollar spent.⁴

Of course, the benefits of connectivity go far beyond the economic. Internet access has the power to: bring better healthcare to rural, conflict-affected, and other underserved areas; help farmers cope with climate change; and connect millions of children and young people to free online courses and learning materials. E-governance and social media are enabling citizens — particularly those that live far from major cities — to participate more actively in civic life, while also streamlining delivery of public services — a move that in Africa alone, could result in technology-related productivity gains of \$10-25 billion annually, by 2025. At the same time, governments are moving to publish openly more of their data online, as part of the "Open Government Data" movement. Open Government Data is well established in the US as a tool for enhancing democracy, fighting corruption, and driving economic growth, and it is gaining traction in other countries too — but these benefits are contingent on the ability for citizens, NGOs, and businesses to access the Internet.

Recognizing these opportunities, the recently agreed global development agenda outlined in the United Nations Sustainable Development Goals (SDGs) includes two targets that speak directly to the power of ICT and Internet access to promote global development: target 5b seeks to "enhance the use of enabling technology, in particular information and communications

¹ Remarks by the President on Launch of ConnectHome Initiative (July 2015).

https://www.whitehouse.gov/the-press-office/2015/07/15/remarks-president-launch-connecthome-initiative

² World Bank (2010), Building broadband: Strategies and policies for the developing world.

http://siteresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/Resources/282822-1208273252769/Building broadband.pdf

³ World Bank (2014), Sub-Saharan Africa Data. http://data.worldbank.org/region/SSA

⁴ Post-2015 Consensus: Infrastructure Assessment, Auriol Fanfalone (2014)

http://www.copenhagenconsensus.com/publication/post-2015-consensus-infrastructure-assessment-auriol-fanfalone

⁵ McKinsey (2013), Lions go digital: The Internet's transformative power in Africa.

http://www.mckinsey.com/insights/high_tech_telecoms_internet/lions_go_digital_the_internets_transformative_potential_in_africa



technology, to promote the empowerment of women"; target 9c aims to "significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020." Indeed, while these two goals set specific ICT targets, access to the Internet and the information contained online has the power to accelerate progress toward and underpin achievement of the full range of global development goals.

INTERNET ACCESS AROUND THE WORLD: A SNAPSHOT

Today, over 60% of the world's population — equivalent to 4.3 billion people — remain offline. These billions of people excluded from the life-changing possibilities of the Internet are predominantly female and nearly all in the developing world — in Africa, just 1 in 5 people use the Internet, and across the world's Least Developed Countries, just 1 in 10 is online. Clearly, we have a long way to go if we are to meet the ambitious universal access target set out in the Sustainable Development Goals.

Mobile broadband — the primary means by which most citizens in the developing world access the Internet — has been critical for expanding Internet access. Global mobile broadband penetration has grown 12-fold to nearly 50% since 2007, however, growth has been unequal. Mobile broadband across the developed world is ubiquitous, with penetration rates reaching nearly 90%, yet this rate drops to just 17.4% in Africa. Furthermore, growth of Internet use in that time has been unequal and the growth rate today is slowing.

This digital divide exacerbates existing economic and social inequalities, and stifles development across the globe by keeping women and other marginalized populations — those who arguably stand the most to benefit from an online connection — from accessing the empowering potential of the Web.

Concerns about the quality of access and respect for human rights online also abound. For instance, the World Wide Web Foundation's 2014 Web Index reported that at least 1.8 billion Internet users have little or no right to privacy or freedom of expression online thanks to pervasive surveillance or censorship.¹⁰

⁶ United Nations (2015), Sustainable Development Goals. https://sustainabledevelopment.un.org/?menu=1300

⁷ ITU (2015), ICT Facts & Figures. http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2015.pdf

⁸ ITU (2015), ICT Facts & Figures. http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2015.pdf

⁹ ITU (2015), ICT Facts & Figures. http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2015.pdf.

¹⁰ World Wide Web Foundation (2014), The Web Index.



BARRIERS TO ONLINE ACCESS

Time and again, the high cost to connect is cited as a primary factor for not using the Internet. While an entry-level broadband connection costs just 1-2% of monthly income across most developed countries, this figure skyrockets to at least 10% in most developing countries, and can reach over 100% of monthly income in a handful of countries.¹¹ The costs associated with purchasing a mobile phone or other Internet-enabled device (most of which are taxed as luxury goods), and with the maintenance of such a device, compounds the problem.

Of course, high prices hit certain groups harder than others, and income inequality masks the true scale of the problem in many countries. We will consider women in detail shortly, but it is worth noting that for the billions living in poverty (i.e., earning less than \$2 a day), the cost of a basic broadband connection is prohibitive. Rural Internet users also have reduced access when compared with their urban counterparts. As well as being disproportionately hard-hit by high prices (as rural dwellers tend to earn less than their urban counterparts), technical barriers remain an obstacle in rural areas — with only 29% of the world's rural population covered with 3G networks. 12

WOMEN AND THE WEB: AN OVERVIEW

Across the developing world, women are nearly 50% less likely to access the Internet than men in the same communities. In a recent study by the Web Foundation examining the digital divide across nine cities in nine developing countries, if just 37% of women reported using the Internet (compared with 59% of men). Women comprise nearly half of India's population, but represent only a third of its online population a picture which is replicated across many other poor countries.

Women are also currently less likely than men to use the Internet in an empowering way. The Web Foundation study found that women are 30-50% less likely than men to use the Internet to increase their income or participate in public life.

¹¹ A4AI (2014), Affordability Report. a4ai.org/affordability-report/report

¹² ITU (2015), ICT Facts & Figures. http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2015.pdf

¹³ World Wide Web Foundation (2014), Women's Rights Online. http://webfoundation.org/wp-gentent/uploade/2015/10/Women's Rights Online. http://webfoundation.org/wp-gentent/uploade/2015/10/Women's Rights Online.

content/uploads/2015/10/WomensRightsOnlineWF_Oct2015.pdf

14 World Wide Web Foundation (2015), Women's Rights Online. http://webfoundation.org/wp-content/uploads/2015/10/WomensRightsOnlineWF_Oct2015.pdf. Cities included in the analysis: Nairobi, Kenya; Kampala, Uganda; Lagos, Nigeria; Yaoundé, Cameroon; Maputo, Mozambique; Bogota, Colombia; New Delhi, India; Jakarta; Indonesia; and Manila; Philippines

¹⁵ Google India (2015), Women and Technology. https://www.womenwill.com/insights/india.html



BARRIERS TO INTERNET USE BY WOMEN IN THE DEVELOPING WORLD

Women, on average, earn 30-50% less than men — meaning high prices hit women disproportionately hard and cost remains a key barrier to women's access. ¹⁶ Yet the economic potential of bringing women online is tremendous: one study estimates that bringing an additional 600 million women online would contribute between US\$13-18 billion to annual GDP across 144 developing countries. ¹⁷

Skills and relevance also remain significant barriers for women. For those that do not use the Internet, lack of know-how was most commonly cited as a barrier for adoption by poor, urban women in the nine countries covered by the Web Foundation's 2015 Women's Rights Online research.¹⁸ (See Figure 1, below.) Policies that address both awareness and digital skills are critical to reduce these barriers for women in developing countries.

Barriers to Internet use among female non users Cost I can't afford it. Know-how I don't know how to use it. Relevance I'm not interested in it. I don't need it / have no use for it. I use it enough for my needs. Time I don't have time. Infrastructure The service is unavailable (no connection at all). The service is unreliable (no good connection). I can't charge my device (phone or tablet) regularly 11% enough to use the Internet. Access to device I don't have a device. I don't know where to use it. I don't have a safe place to use it. I'm worried about my identity and privacy online. I'm not allowed to use it. I was told it was bad / inappropiate for me.

Figure 1. Barriers to Internet use among female non-users (Web Foundation, Women's Rights Online, 2015)

Other / Don't know.

¹⁶ A4AI (2014), Affordability Report. a4ai.org/affordability-report/report

¹⁷ Intel (2014), Women and the Web. https://www-ssl.intel.com/content/www/us/en/technology-in-education/women-in-the-web.html

¹⁸ See World Wide Web Foundation (2015), Women's Rights Online for more information: http://webfoundation.org/wp-content/uploads/2015/10/WomensRightsOnlineWF Oct2015.pdf



SOLVING THE ACCESS CHALLENGE

The potential of the Internet — and specifically, women's access to the Internet — to boost economic growth, empower democratic governance, and advance global development cannot be overlooked as a key component of US foreign policy. The following policy recommendations provide a brief overview of concrete actions that the US government can support and invest in to ensure that Internet access becomes universal and affordable, and that it provides a safe, free and open platform to support digital inclusion for women's empowerment.

- Support policy reform based on inclusive, multi-stakeholder processes that will lead to market growth and lower costs. Clearly, lower prices will allow more women and men to come online. The A4AI 2014 Affordability Report provides a roadmap for policies ¹⁹ that have proven to support these outcomes, including: frameworks that support open access and infrastructure sharing among infrastructure service providers; and universal access policies that focus on expanding access in rural areas, in part through the provision of public and shared access facilities.
- Coordinate broadband expansion strategies with developments in the energy sector. Electricity is an essential infrastructure variable in the path toward affordability A4AI research shows that the lower the electrification rate, the higher mobile broadband prices are, and vice versa. Collaboration between national governments, energy ministries, and other stakeholders within the energy sector to coordinate broadband and electricity infrastructure expansion plans with a view to reducing unnecessary costs and increasing shared infrastructure options across the sectors is critical to increasing affordability and enabling wider access.
- Invest in International Telecommunication Union (ITU) efforts to expand collection of gender indicators, and support national statistics agencies to do the same. The collection of gender-disaggregated and gender-specific data is critical to understand realities faced by women and other unconnected populations on the ground. While many international organizations and national statistical agencies have recognized this need, many efforts require additional resources and capacity to collect and analyze this data in a thorough and holistic manner. Ensuring that gender data is properly collected and analyzed will improve the availability and quality of gender-based data for decision-making and policy making purposes.
- Support the development of inclusive and holistic national ICT policies and broadband plans that address all aspects of the access and use ecosystem. National ICT and broadband policies and plans must address infrastructure and supply-side issues needed

¹⁹ A4AI (2014), Affordability Report: Roadmap to Affordable Internet. http://a4ai.org/affordability-report/report/#a_roadmap_to_affordable_internet

²⁰ A4AI (2014), Affordability Report. a4ai.org/affordability-report/report



to reduce the cost to connect and expand Internet access, and must also work to stimulate and support increased demand for Internet services by all population groups. Specifically, policies must support and create focused programs, applications, services, and content that are relevant to women's everyday challenges and needs, making them relevant and meaningful to their livelihoods and making women more likely to see the value of Internet access.

- Recognize barriers faced by women and ensure privacy and safety online. In addition to cost-related barriers to access, women also face serious barriers around privacy and safety online. Sector policies should aim to contribute to and achieve gender equality and, most importantly, ensure that offline inequalities are not replicated online. Education programs and consumer campaigns to increase awareness of the utility of the Internet, as well as trainings on basic skills and safety online, will be critical to ensuring women can access and fully utilize a safe and open Web, without fear of retaliation.
- Incorporate digital skills education into education programs from primary school onwards. Web Foundation research points strongly to the overwhelming difference that education makes to women's use of technology, even when controlling for other factors such as income and age. Primary school enrollment rates are quite high in many developing countries; by incorporating ICT literacy basics and online safety training in primary and secondary school curricula, digital opportunities can be expanded to many of those that are excluded today.
- **Develop and support programs that provide public access and target underserved populations**. Public access represents an important avenue for providing offline populations and those users that cannot afford Internet access with online resources and services. Resources to increase access at community centers and local public institution facilities, such as libraries and schools, and support for universal access and service funds will help to create more equal growth and close the digital divide.²¹

²¹ To learn more about the role of universal access and service funds in supporting affordable Internet access, please see "Universal Service and Access Funds in the Broadband Era: The Collective Investment Imperative" at http://a4ai.org/wp-content/uploads/2015/03/A4AI-USAFs-2015_Final-v.2.pdf